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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/726,440

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EXAMINER

NGUYEN, PHUONGCHAU BA

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/726,440	<b>Applicant(s)</b> KOBAYASHI, OSAMU	
	<b>Examiner</b> PHUONGCHAU BA NGUYEN	<b>Art Unit</b> 2416	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 9-12-8.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,7,12,13,17,18 and 23-34 is/are rejected.
- 7) ☒ Claim(s) 3-5,8-11,14-16,19-22,and 35-37 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Claim Objections***

1. Claim 24 is objected to because of the following informalities: “a method” in line 1 should be changed to ---Computer program product---.

Appropriate correction is required.

***Claim Rejections – 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 23–33 are rejected under 35 U.S.C. 101 because it is not sure if the computer program product is a software or hardware. Also, in paragraph 0081 merely discloses the computer readable medium embedded on carrier waves. See MPEP 2106.01, wherein “when nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-

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readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diamond v. Diehr*, 450 U.S. 175, 185–86, 209 USPQ 1, 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because “[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.”). Such a result would exalt form over substance. In *re Sarkar*, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978) (“[E]ach invention must be evaluated as claimed; yet semantogenic considerations preclude a determination based solely on words appearing in the claims. In the final analysis under § 101, the claimed invention, as a whole, must be evaluated for what it is.”) (quoted with approval in *Abele*, 684 F.2d at 907, 214 USPQ at 687). See also *In re Johnson*, 589 F.2d 1070, 1077, 200 USPQ 199, 206 (CCPA 1978) (“form of the claim is often an exercise in drafting”). Thus, nonstatutory music is not a computer component, and it does not become statutory by merely recording it on a compact disk. Protection for this type of work is provided under the copyright law

***Claim Rejections – 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1–2, 6–7, 11, 12–13, 17–18, 23–24, 28–29, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mamiya (US 2001/0030649 A1) in view of Kelton (US 2004/0203383 A1).

Regarding claims 1, 12,

Mamiya discloses a method of real time optimizing transmission of a number of multimedia data packets between a multimedia source device (Host system 10–fig.5) and a multimedia display device (display 30, fig.5) coupled by way of a unidirectional main link (unidirectional fast transfer line 56–fig.5) arranged to carry the multimedia data packets from the multimedia source device and the multimedia display device and a separate bi-directional auxiliary

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channel (bi-directional fast transfer line 57-fig.5) arranged to transfer information between the multimedia source device and the multimedia display device

Mamiya does not explicitly disclose providing a test pattern by the multimedia source device on the main link; determining a transmission quality factor of the main link based upon the test pattern; and optimizing the transmission of the multimedia data packets based upon the transmission quality factor. However, in the same field of endeavor, Kelton discloses providing a test pattern (test data packet, 0037) by the multimedia source device 110-fig.1 on the main link 150-fig.1; determining a transmission quality factor (current channel reliability) of the main link 150-fig.1 based upon the test pattern (test data packet, see 0037); and optimizing (adjusting) the transmission of the multimedia data packets (coding rate, bit per symbol to carriers) based upon the transmission quality factor (identifier channel reliability, see 0037). Therefore, it would have been obvious to an artisan to

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apply Kelton's teaching to Mamiya's system with the motivation being to determine the current channel reliability and to improve channel output.

Regarding claims 2, 13, Kelton further discloses wherein the determining a transmission quality factor comprises: determining (identifying) a bit error rate (BER, 0037) based upon the test pattern by the multimedia display device; sending the bit error rate (acknowledge, 0037) to the source device 110-fig.1 by way of the auxiliary channel 155-fig.1 (also see 0041).

Regarding claims 6, 17, Kelton further discloses wherein the bi-directional auxiliary channel 155-fig.2 is formed of a uni-directional back channel configured to carry information from the display device 170-fig.2 to the source device 110-fig.2 and a unidirectional forward channel included as part of the main channel 155-fig.2 for carrying information from the source device 110-

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fig.2 to the display device 170–fig.2 in concern with the back channel 155–fig.2 (0051).

Regarding claims 7, 18, Kelton further discloses wherein the number of multimedia data packets are divided into a number or associated multimedia data packets streams (0057–0058, wherein transmitting the first set of data associated with the first device to the first device, and the second set of data associated with the second device to the second device; see also 0035).

Regarding claims 23, 24, 28, 29,

Mamiya discloses the host system 10–fig.5 maybe composed of a personal computer PC that includes an optional card or used a semiconductor chip for realizing such the card function, Wherein the program in the PC maybe updated so as to realize the card function in a software manner, See 0045.

Mamiya–Kelton discloses all the claimed limitations as disclosed in the rejections to claims 1–2, 6–7, 12–13 & 17–18 as set forth, but not explicitly



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disclose computer program product comprising: computer code for providing, determining, optimizing and computer medium for storing the computer code.

However, Kelton further discloses data controller 115-fig.1 can be used to read data received over medium 105, thus the storage is inherent therein the data controller 115 from capable of receiving (0033); the data controller 115 further identifying (determining as claimed) a receiving device (0033); selecting and providing data (optimizing as claimed) correspondence to the control data returned from devices (0035). Therefore, it would have been obvious to implement Kelton's teaching in computer code storing on computer medium (software) as suggested for devices 162 in software or hardware, thus it is a common practice to implement to source device 110 in software or hardware with the motivation being to easy modify the instructions in software or computer code for updating process and cost saving.

**Regarding claim 34,**

Mamiya discloses a method of real time optimizing transmission of a number of multimedia data packets between a multimedia source device (Host system 10-fig.5) and a multimedia display device (display 30, fig.5) coupled by way of a unidirectional main link (unidirectional fast transfer line 56-fig.5) arranged to carry the multimedia data packets from the multimedia source device and the multimedia display device and a separate bi-directional auxiliary channel (bi-directional fast transfer line 57-fig.5) arranged to transfer information between the multimedia source device and the multimedia display device.

Mamiya does not explicitly disclose (a) providing a test pattern by the multimedia source device on the main link; (b) determining a bit error rate of the main link based upon the test pattern; (c) sending the bit error rate to the source device by way of the auxiliary channel; (d) determining if the bit error rate is greater than a predetermined threshold value bit error rate; and (e) optimizing the transmission of the multimedia data packets based upon the determining (d).

However, in the same field of endeavor, Kelton discloses (a) providing a test pattern (test data packet, 0037) by the multimedia source device 110-

fig.1 on the main link 150-fig.1; (b) determining a transmission quality factor (current channel reliability) of the main link 150-fig.1 based upon the test pattern (test data packet, see 0037); (c) sending the bit error rate (acknowledge, 0037) to the source device 110-fig.1 by way of the auxiliary channel 155-fig.1 (also see 0041); (d) determining (identifying) a bit error rate (BER, 0037) based upon the test pattern by the multimedia display device; and (e) optimizing (adjusting) the transmission of the multimedia data packets (coding rate, bit per symbol to carriers) based upon the transmission quality factor (identifier channel reliability, see 0037). Therefore, it would have been obvious to an artisan to apply Kelton's teaching to Mamiya's system with the motivation being to determine the current channel reliability and to improve channel output.

***Allowable Subject Matter***

6. Claims 3-5, 8-11, 14-16, 19-22, 35-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

7. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In

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no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUONGCHAU BA NGUYEN whose telephone number is (571)272-3148. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on 571-272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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